Unintentional injuries and violence are the leading causes of death, hospitalization, and disability for children ages 1-18. This fact sheet provides a snapshot of data on the injury-related Maternal and Child Health Block Grant National Performance Measures and Health Status Indicators, with a special focus on disparities based on race, gender, and rural/urban residence. The fact sheet is intended to be a helpful and easy-to-use tool for needs assessments, planning, program development, and presentations.

The Children’s Safety Network (CSN) National Injury and Violence Prevention Resource Center, funded by the Maternal and Child Health (MCH) Bureau, works with states to utilize a science-based, public health approach for injury and violence prevention (IVP). CSN is available to provide information and technical assistance on injury surveillance and data; needs assessments; best practices; and the design, implementation, and evaluation of programs to prevent child and adolescent injuries.

This 2014 state fact sheet includes data that was available as of May 2014. The fact sheet will be updated as new data is made available at the federal level.

**Major Causes of Injury Death**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Age Group</th>
<th>Cause</th>
<th>Rank</th>
<th>Age Group</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt;1</td>
<td>Short Gestation 451</td>
<td>2</td>
<td>1 - 4</td>
<td>Congenital Anomalies 286</td>
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<tr>
<td></td>
<td></td>
<td>Unintentional Injury</td>
<td></td>
<td>5 - 9</td>
<td>Unintentional Injury</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Malignant Neoplasms</td>
<td></td>
<td>10 - 14</td>
<td>Malignant Neoplasms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional Injury</td>
<td></td>
<td>15 - 19</td>
<td>Unintentional Injury</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Malignant Neoplasms</td>
<td></td>
<td>20 - 24</td>
<td>Unintentional Injury</td>
</tr>
<tr>
<td>2</td>
<td>Congenital Anomalies 286</td>
<td>Congenital Anomalies 27</td>
<td>3</td>
<td>SIDS 147</td>
<td>Malignant Neoplasms 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unintentional Injury</td>
<td></td>
<td></td>
<td>Congenital Anomalies 13</td>
</tr>
<tr>
<td>3</td>
<td>SIDS 147</td>
<td>Malignant Neoplasms</td>
<td>4</td>
<td>Maternal Pregnancy Comp. 132</td>
<td>Homicide 15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suicide 99</td>
<td></td>
<td></td>
<td>Suicide 12</td>
</tr>
<tr>
<td>4</td>
<td>Maternal Pregnancy Comp. 132</td>
<td>Homicide 10</td>
<td>5</td>
<td>Maternal Pregnancy Comp. 132</td>
<td>Malignant Neoplasms 60</td>
</tr>
<tr>
<td>5</td>
<td>Placenta Cord Membranes 106</td>
<td>Influenza &amp; Pneumonia</td>
<td>2</td>
<td>Placenta Cord Membranes 106</td>
<td>Benign Neoplasms 79</td>
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<td>****</td>
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<td></td>
<td></td>
<td>Heart Disease 38</td>
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<td>Heart Disease 58</td>
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<td></td>
<td></td>
<td>Heart Disease 11</td>
<td></td>
<td></td>
<td>Heart Disease 38</td>
</tr>
</tbody>
</table>

Note: **** indicates that the cell values range from 1-9 and are suppressed for data confidentiality purposes.
# Major Causes of Hospital-Admitted Injuries

These results are preliminary.

## Table 2: Leading Causes and Total 5-Year Incidence of Injury Deaths by Age Group, Massachusetts, 2006-2010

<table>
<thead>
<tr>
<th>Rank</th>
<th>&lt;1</th>
<th>1 - 4</th>
<th>5 - 9</th>
<th>10 - 14</th>
<th>15-19</th>
<th>20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Suffocation 14</td>
<td>Homicide 15</td>
<td>Homicide 10</td>
<td>MV Traffic 18</td>
<td>MV Traffic 200</td>
<td>MV Traffic 305</td>
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<tr>
<td>2</td>
<td>Homicide 12</td>
<td>Drowning 14</td>
<td>Drowning ****</td>
<td>Homicide 13</td>
<td>Homicide 130</td>
<td>Poisoning 263</td>
</tr>
<tr>
<td>3</td>
<td>Undetermined Unspecified ****</td>
<td>MV Traffic 12</td>
<td>MV Traffic ****</td>
<td>Suicide 12</td>
<td>Suicide 99</td>
<td>Homicide 230</td>
</tr>
<tr>
<td>4</td>
<td>*Four Tied ****</td>
<td>Suffocation ****</td>
<td>**Three Tied ****</td>
<td>Drowning 10</td>
<td>Poisoning 47</td>
<td>Suicide 173</td>
</tr>
<tr>
<td>5</td>
<td>Undetermined Poisoning ****</td>
<td>Unspecified Fall ****</td>
<td>***Seven Tied ****</td>
<td>Undetermined Suffocation ****</td>
<td>Drowning 23</td>
<td>Other land transport 27</td>
</tr>
</tbody>
</table>

Note: All mechanisms of suicide and homicide were combined according to intent. Each listed mechanism is unintentional except those otherwise noted. **** = indicates that the cell values range from 1-9 and are suppressed for data confidentiality purposes. *For ages <1 four mechanisms were tied for the fourth ranking including Drowning, Fire/Burn, MV Traffic, and Struck by/against. Each of these mechanisms had fewer than 10 deaths. **For ages 5-9 three mechanisms were tied for the fourth ranking including Fire/Burn; Pedestrian, other; and Suffocation. Each of these mechanisms had fewer than 10 deaths. ***For ages 5-9 seven mechanisms were tied for the fifth ranking including Fall; Natural/environmental; Other land transport; Pedal cyclist, other; Poisoning; Struck by/against; and Suicide. Each of these mechanisms had fewer than 10 deaths.

## Table 3: Leading Causes and Annual Incidence of Hospital-Admitted Injuries by Age Group, Massachusetts Residents, 2011

<table>
<thead>
<tr>
<th>Rank</th>
<th>&lt;1</th>
<th>1 - 4</th>
<th>5 - 9</th>
<th>10 - 14</th>
<th>15-19</th>
<th>20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Other Specified, NEC 105</td>
<td>Fall 183</td>
<td>Fall 233</td>
<td>Fall 166</td>
<td>Self-Inflicted 365</td>
<td>Self-Inflicted 512</td>
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<tr>
<td>2</td>
<td>Fall 89</td>
<td>Other Specified, NEC 93</td>
<td>MVT 49</td>
<td>Struck By/ Against 99</td>
<td>MVT 227</td>
<td>MVT 442</td>
</tr>
<tr>
<td>3</td>
<td>Assault 31</td>
<td>Poisoning 70</td>
<td>Other Specified, NEC 39</td>
<td>Self-Inflicted 64</td>
<td>Fall 208</td>
<td>Assault 333</td>
</tr>
<tr>
<td>4</td>
<td>Suffocation 18</td>
<td>Bites &amp; Stings 57</td>
<td>Bites &amp; Stings 35</td>
<td>MVT 59</td>
<td>Other Spec, NEC 59</td>
<td>Assault 157</td>
</tr>
<tr>
<td>5</td>
<td>Poisoning 14</td>
<td>Struck By/ Against 27</td>
<td>Struck By/ Against 34</td>
<td>Pedal Cyclist, Other 43</td>
<td>Struck By/ Against 122</td>
<td>Poisoning 197</td>
</tr>
</tbody>
</table>

Note: MVT = Motor Vehicle Traffic. NEC = Not Elsewhere Classifiable. Spec = Specified. Each listed mechanism is unintentional except those otherwise noted. Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2014. Incidence based on 2011 data from the state and obtained from the Massachusetts State Inpatient Databases (SID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (AHRQ), and the Center for Health Information and Analysis (Boston, MA). These injuries exclude patients who were dead at the time of discharge, readmission cases, transfers (e.g., from another short or long-term care facility, different acute care hospital), medical misadventures, and/or who suffered non-acute injuries. All counts were based on the patients' state of residence.
Motor Vehicle-Related Deaths for Children 0-14 Years of Age

Reducing unintentional motor vehicle deaths to children ages 0-14 is a Maternal and Child Health Block Grant National Performance Measure (Number 10). Motor vehicle-related deaths remain a major cause of death for this age group. Figure 1 shows the change in the rate of state motor vehicle-related deaths compared to the US rate from 2003-2007. Overall, the rate of death per 100,000 population declined steadily across the US during this period. Figure 2 provides a breakout of the fatalities by type distinguishing motor vehicle occupant deaths (of any vehicle type) from pedestrian and pedal cyclist fatalities. This information allows states to understand which types are responsible for most of the fatalities.

Figure 3 breaks out the fatalities by race and age group. There are considerable differences between races suggesting variations in social norms, safety practices, and the presence of risk factors, including child restraint system (CRS) or safety belt usage, alcohol involved crashes, and the use of helmets.

Many factors may affect this variation. Figure 4 provides a breakdown of fatalities by gender and, although there is little variability between males and females for the 10-14 age group, there is an increasing difference in the 15-24 age group. Figure 4 suggests that the female rate decreased for 20-24 year olds compared with the 15-19 year olds while male fatalities increased for 20-24 year olds.

50% of children ages 0 through 14 involved in a motor vehicle fatality were pedestrians.
One way of understanding disparities is to look at the rate of injuries by place of occurrence. To show this, CSN has provided the rates for the 0–14, 15-19 and 20-24 age groups using the urban-rural classification system developed by the National Center for Health Statistics (NCHS). To show how injury rates vary by level of urbanization, a table based on the classification system can be found here and defines six levels of urbanization: large central metro, large fringe metro, medium metro, small metro, micropolitan, and noncore. Figure 5 shows how the rate varies by age group by place of occurrence/urban-rural setting. This information allows the state to better understand any disparity that may occur between the different settings. Data are provided only for those areas in which 20 or more deaths occurred.

Many of these motor vehicle related deaths can be prevented through the implementation of a broad range of evidence-informed interventions and programs. These data are intended to provide a broad overview of the magnitude of the problem and to highlight possible disparities which may exist by race, gender, and urbanicity.
Suicide Deaths for Youths 15-19 Years of Age

Reducing suicide deaths in youth 15 to 19 years of age is a Maternal and Child Health National Performance Measure (Number 16). Suicide is the 4th leading cause of death and the 3rd leading cause of injury-related death among US youth 10-24 years of age. According to the 2011 Youth Risk Behavior Surveillance Survey (YRBSS), 15.8% of students seriously considered attempting suicide and 7.8% of students attempted suicide one or more times in the 12 months prior to the survey. Although progress has been made over the past decade in reducing the rate of completed suicides nationally, this reduction has leveled off in the last few years. The following figures provide state-specific data related to suicide. Figure 6 shows the state rate from 2006-2010 for 15-19 year olds in comparison to the US rate for the same age group and time period. Figure 7 provides information on the means used by the 15-19 year olds for completed suicides. It is important to note that the actual number of suicides is often quite small thus resulting in considerable variation when looking at year to year rates.

69% of youth ages 15 through 19 completed suicide by using suffocation.
The YRBSS provides information about behaviors that contribute to unintentional and intentional violence among youth. Figures 8 and 9 provide information on the percentage of high school students with suicide ideation and the percentage who reported being medically treated for a suicide attempt from 2003-2011, respectively. This information and other information available in the YRBSS can help states understand how behaviors are changing within this age group.

Figure 10 shows how the rate differs by race for 15-19 and 20-24 year olds from 2006-2010. Figure 11 shows the difference by gender for the same age group and time period with the male rate for both age groups exceeding the female rate. Figure 12 looks at the variation in rate by urbanicity for 15-24 year olds with the rate increasing as rurality increases (see definition of urbanicity in Motor Vehicle section). This information provides a better understanding of the magnitude of the problem in different parts of the state, helping the state to identify environmental risk factors and facilitate decision making on where to target its suicide prevention efforts.

Unintentional and Undetermined Drug Poisoning Deaths for Youths 15 -24 Years of Age

Poisoning is the 3rd leading cause of injury-related death among US youth ages 20-24 and the 5th leading cause of injury-related death among US youth ages 15-19. Drug overdose death rates among all ages in the US have more than tripled since 1990 and have never been higher. (1) Poisoning can be intentional or unintentional; poisoning cases reported here include prescription medications, illicit drugs and other, unspecified drugs. According to the national survey Monitoring the Future, in 2013 15 percent of high school seniors used a prescription drug non-medically in the past year. (2) Every day in the US, an average of 2,000 teenagers use prescription drugs for the first time without a doctor’s guidance. Youth who abuse prescription medications are also more likely to report use of other drugs. (3) Many teens falsely believe that because prescription medicines are prescribed by a physician, are inexpensive, and are widely available they are safer than illicit drugs.
Figure 15 provides state-specific fatality rates for motor vehicle traffic, suicide, and drug poisoning for youth aged 15 through 24 for the period 2006-2010. Overall in the US, the rate of motor vehicle-related fatalities for this age group has decreased significantly from 2006 to 2010. However, the rate of fatalities for both suicide and drug poisoning has remained stable with a slight increase from 2009 to 2010. Figure 16 provides data on the rate of unintentional and undetermined drug overdoses in the state compared to the national rate. Figure 17 shows the percentage distribution of fatal unintentional and undetermined drug poisoning by drug type for the period 2006-2010.

**IVP Health Status Indicators**

The Maternal and Child Health Bureau requires every state to report on 12 Health Status Indicators. Six of the indicators are related to IVP. The two figures below reflect the data reported for the IVP Health Status Indicators by the state in their Maternal and Child Health Block Grant Application Form 17, 2013.
State Specific Performance Measures and Priority Needs

Each state develops up to 10 State Performance Measures and Priority Needs. The following provides information about the states’ selected 2014 injury-related Performance Measures and Priority Needs.

Massachusetts has the following injury-related State Performance Measures:

- Increase the percentage of School-Based Health Center clients for whom an assessment for intimate partner/teen dating/sexual violence was done.
- Reduce the rate (per 100,000) of unintentional motor vehicle traffic occupant deaths among youth aged 15-19 years.
- Reduce the percentage of high school students having missed a school day due to feeling unsafe at or on the way to school.

Massachusetts has the following injury-related Priority Needs:

- Enhance screening for and prevention of violence and bullying.
- Reduce unintentional injury and promote healthy behavior choices for adolescents.

Citations and Sources


Table 1 Source: WISQARS Leading Causes of Death Reports, 2006-2010
Table 2 Source: National Center for Health Statistics, Multiple Cause of Death Data, 2006-2010
Table 3 Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2013.
Table 4 Source: Children's Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2013.
Figure 1 Source: WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figure 2 Source: WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figure 3 Source: WISQARS Injury Mortality Reports, 2006-2010
Figure 4 Source: WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figure 5 Source: CDC WONDER Multiple Cause of Death data, 2006-2010 and Urban-Rural Definition Classification System. The classification scheme can be found at: http://wonder.cdc.gov/wonder/help/CMF/Urbanization-Methodology.html. 2006 NCHS Urban-Rural Classification Scheme for Counties, by Deborah D. Ingram and Sheila Franco.
Figure 6 Source: WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figure 7 Source: WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figures 8 & 9 Source: Youth Online: High School Youth Risk Behavior Survey (YRBS), 2003-2011
Figure 10 Source: WISQARS Injury Mortality Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figure 11 Source: WISQARS Fatal Injury Reports, 2006-2010 and WISQARS Injury Mortality Reports, 2003-2007
Figure 12 Source: CDC WONDER Multiple Cause of Death data, 2006-2010 and Urban-Rural Definition Classification System
Figures 13 & 14 Source: HRSA, Title V Information System Multi-Year Report. Some states may have changed their method of calculation.
Figure 17 Source: National Center for Health Statistics, Multiple Cause-of-Death Data, 2006-2010.
State Contacts

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About Children’s Safety Network

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In this fact sheet CSN provides a cursory review of the injury morbidity and mortality data available for the state. The figures and tables in this fact sheet can help you understand the state’s progress in addressing motor vehicle traffic injuries and suicide. To target and address these and other injury issues, it is critical to understand this data. CSN can assist you in conducting detailed data analyses, utilizing surveillance systems, and undertaking needs assessments. For assistance, contact the Children’s Safety Network at csninfo@edc.org.

Connect with the Children’s Safety Network
43 Foundry Avenue Waltham, MA 02453-8313

CSN’s website: http://www.ChildrensSafetyNetwork.org
CSN on Facebook: http://www.facebook.com/childrenssafetynetwork
CSN on Twitter: http://www.twitter.com/childrenssafety
Register for the CSN newsletter: http://go.edc.org/csn-newsletter
Need TA? Have Questions? E-mail: csninfo@edc.org

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